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Date	13 May 2019
Version Number	v4.1 (EFCC final)
Review Date	
Author	Fiona Martin/Geoff Sinclair
Land Area	53 ha
Compartment Number	33
Designations	<p>Forest Land</p> <p>Site of Special Scientific Interest (SSSI)</p> <p>Special Area of Conservation (SAC)</p> <p>Archaeological Priority Area (APA)</p> <p>London Borough of Waltham Forest Park and Garden of Local Historic Interest</p>

HIGHAMS PARK, LITTLE SALE WOOD and OAK HILL WOOD

INDIVIDUAL SITE PLAN

INTRODUCTION

Individual Site Plans (ISPs) aim to review and collate the City Corporation's property management considerations at specific locations, to give an overview of current practice and outline longer term plans. An important part of the process is to work with key local stakeholders to ensure that we capture the management issues impacting each site. Site selection is centered around areas of Epping Forest that have a high number of competing issues and/or high visitor numbers.

The ISPs reflect the current level of activity at each site; however, an important part of each ISP is the identification of any potential improvement and enhancement projects that require additional resources, including support from external operational stakeholders, for example in the form of grant funding or volunteer person-hours. The information gathered in each report will be used by the City Corporation to prioritise work and spending on each site as part of the development of the 2019-29 Management Strategy and 2019-2022 Business Plan for Epping Forest.

Each ISP will aim to follow the same structure, outlined below:

- **Background** – a brief description of the extent of the site covered by the ISP;
- **Property Management Issues** – a list of identified property management considerations for the site;
- **Management Considerations** – a list of identified management considerations for the site, with respect to ecology, conservation, community, heritage, landscape and any other identified management issues;
- **Potential Enhancement Projects Requiring External Support** – a list of projects that would enhance the quality of one or more aspects of the site, for which additional support would be required;
- **Management Strategy** – a summary of the key overall objectives for managing the site, as identified by the audit;
- **Outline Management Programme** – a summary of the management actions identified for the site as a result of the audit and consultation process, with anticipated timelines for completion;
- **External Operational Stakeholders** – a list of external stakeholders who have an operational input to the site, who have been consulted as part of the compilation of the Individual Site Plan;
- **Bibliography** – a list of existing reports (if available) that have formed part of the audit for the ISP; and
- **Appendices** – including a detailed activity plan.

BACKGROUND

Highams Park, Little Sale Wood and Oak Hill Wood are part of Compartment 33 within Epping Forest, situated in the Borough of Waltham Forest, around 10 miles from the centre of the City of London. Figure 1 shows an overview of place names both within Compartment 33 and in the surrounding area. The land within Compartment 33 is protected under the Epping Forest Act 1878, as well as being designated as a *Site of Special Scientific Interest* (SSSI) and a *Special Area of Conservation* (SAC). Highams Park itself forms a narrow strip of Forest land, connecting areas to its south, including Little Sale Wood and Oak Hill Wood, with those to the north, including Whitehall Plain. The woodland and lake of Highams Park is contiguous with 'The Highams Park', an area managed by the London Borough of Waltham Forest for public amenity, which creates a wider area of open space in that locality.

The Sale (more recently known as Great Sale Wood and Little Sale Wood) is a name that is believed to date back to Saxon times. Some local field and road names, and the name of Sale itself, are Anglo-Saxon in origin. The Old English *salh*, from which "Sale" is derived, means "at the willow tree", which is the old name for the Willow tree. It is also associated with old manor houses in the area. Hale End hamlet was an old Saxon settlement recorded in the Domesday Book.

The key natural habitats of Highams Park, Little Sale Wood and Oak Hill Wood are mixed semi-natural woodland, lapsed wood pasture with an important population of ancient Oaks and Hornbeam pollards, acid grassland, a large lake, ponds, a small river and ditches. These habitats are part of the remains of a once extensive designed landscape, superimposed on and incorporating features of the more ancient wood-pasture landscape, which were laid out for the house known as Highams, designed by the significant late Georgian landscaper Humphry Repton and the subject of one of his famous Red Books, published in 1794. This designed landscape includes an area of surviving parkland ('The Highams Park'), owned by the London Borough of Waltham Forest, and used as a public park.

A narrow strip of woodland (Little Sale Wood) was once part of Repton's designed landscape, and there remains a long cambered bank, thought to be a trackway from Repton's landscaping. The mansion of the historic landscape of Highams survives, though it is no longer contiguous with the parkland and lake due to the development of housing in the 1930s. The house is now Woodford County High School for Girls. Highams Park, Little Sale Wood, Oak Hill Wood and 'The Highams Park' are not on English Heritage's *Register of Parks and Gardens of Historic Interest*. In the Waltham Forest Local Plan, 'The Highams Park' (and adjacent lake in Highams Park) are included in Schedule 18 as Parks and Gardens of Local Historic Interest.

The body of water which is now known as Highams Park lake was originally designed to be an ornamental fish pond and was created by damming the River Ching. The River Ching was then diverted to the west from its original position, where it can be found today. Although Highams Park lake is no longer directly located on the main River Ching, it receives water from the high ground to the east and, in very extreme flood events, the River Ching overtops into the lake at the northwest end. Highams Park lake is regulated by the Reservoirs Act 1975 (as amended by the Flood and Water Management Act 2010) and is routinely inspected by an independent reservoir engineer twice a year.

The adjacent parkland of The Highams Park is a popular visitor amenity. There is an active group of conservation volunteers, The Highams Park Snedders, who are part of the Highams Park Planning Group (HPPG). The HPPG have also recently opened a community coffee shop and associated public conveniences, which is operated as a Community Interest Company (CIC). Public footfall to The Highams Park and the adjacent Highams Park is expected to increase over the coming years. The 2014 visitor survey for Highams Park recorded a total of 72,528 visits.

Little Sale Wood is a narrow strip of mostly Hornbeam woodland linking Highams Park woodland to the north and Oak Hill Wood to the south. Oak Hill Wood is an area of dense scrub growth with poorly defined access paths, and is much less frequented by visitors.

Under a tenancy agreement with the City Corporation, the Scout Association have a Boat Hut on the southern shore of the lake, from which they access the lake in canoes.

PROPERTY OBLIGATIONS

Flood risk and dam infrastructure

- National Flood Risk: Under the Flood and Water Management Act 2010, Highams Park lake is classified as National Flood Risk Category 3 (highest risk), whilst the River Ching on Epping Forest land is classified as Category 2. See <https://flood-map-for-planning.service.gov.uk/confirm-location?easting=538866&northing=193001&placeOrPostcode=chingford%20hatch%20london>.
- City Corporation has a statutory responsibility to monitor and maintain the Highams Park lake dam and associated infrastructure to standards set out in the Reservoirs Act 1975 (as amended by the Flood and Water Management Act 2010). The reservoir is inspected twice yearly by a Consulting Engineer with the following aspects observed closely:
 - functioning of the spillway and draw down structures;
 - absence of obstructions, including vegetative growth on the dam and spillways; and,
 - frequency of monitoring inspections.
- Improvement works: Works were undertaken in 2014 to create a 50m long reinforced grass spillway so that the dam can safely cope with future predicted extreme flood flows. As part of these works, a reinforced wall was constructed around the boathouse, to allow its retention whilst complying with Reservoir regulations. A new draw down valve on the western edge of the lake, connecting it to the River Ching, was also constructed, so that the lake level can be reduced when required.

Infrastructure

- Footbridge/culverts: There are three footbridges (two at the northern end of the compartment and one at the southern end) and one culvert, at the northern end of the compartment. These have biennial structural / safety inspections by the Corporation's City Surveyor Department.
- Benches: There are four benches within the compartment, with one bench in Little Sale Wood which is situated under a tree. The risks associated with benches under trees are covered as part of a separate Tree Safety Policy (City of London Corporation, 2019).
- Revetments and landing stage: Existing timber revetments around the lake are in a poor state of repair, with erosion of the bank behind the revetments. A pre-existing landing stage on the east side of the lake is also in a poor state of repair since its use was discontinued.

Tree Safety

- Tree Safety: The whole of Epping Forest falls into one of four tree safety management zones (City of London Corporation, 2018). Trees along main roads are in a Red + Zone and surveyed yearly. Alongside minor highways, trees in the Red Zone are surveyed every 2 years. Trees in Amber Zone, in areas frequented by the public and where trees abut properties, are surveyed every three years. Red +, Red and Amber zones are surveyed by specialist external tree safety

consultants. Parts of the Forest where public footfall is low but there is regular use, such as main paths, are in a Green Zone and are surveyed by City Corporation Keepers on a five year rotation.

- The trees along Chingford Lane are in the Red + Zone, whilst those along Forest Glade, The Charter Road, Alders Avenue and Oak Hill are in the Red Zone, trees around Highams Park lake, where footfall is high and those abutting properties are in the Amber Zone, and those in Highams Park woodland and along the little used shared use trail in Little Sale Wood and Oak Hill Wood are in a Green Zone.

Statutory Designations

- SSSI and SAC: Highams Park woodland and lake, as part of Epping Forest, is designated a *Site of Special Scientific Interest* (SSSI) and a *Special Area of Conservation* (SAC). The compartment was assessed by Natural England (NE) in January 2010 as 'Unfavourable – declining', with poor air quality and tree health being major concerns.
- Archaeological Priority Areas: The lake, River Ching and the southern end of The Highams Park are designated by Historic England as Archaeological Priority Areas within Greater London (Historic England, 2016). These areas are described in the Waltham Forest Unitary Development Plan (adopted 2006, due to be reviewed in 2023) as 'an area of probable Saxon occupation and the site of the medieval manor of Hecham, which was in existence by the 11th century. It is also the site of the 18th century Highams House and Park' and the River Ching is described as 'a possible focus of activity where archaeological evidence may be preserved in alluvial deposits'.

Invasive / Alien Species

- Japanese Knotweed (*Fallopia japonica*) has been identified and treated at the northern end of the site, but has been re-found recently. Under Schedule 9 of the Wildlife and Countryside Act 1991, it is an offence to plant or otherwise cause this species to grow in the wild. Under the Environment Protection Act 1990, this species is also classified as controlled waste.
- Terrapins (typically the red-eared slider (*Trachemys scripta elegans*) have been introduced into and become established in the lake. Terrapins are not native to the UK and their introduction has led to damaging predation on native species, especially frogs and dragonflies.
- There is a record of an Oak Processionary Moth (*Thaumetopoea processionea* - OPM) colony in an Oak (*Quercus* sp) tree on the west side of the lake towards the northern end. The presence of this species is likely to increase during the period of this plan and this will require communications with visitors, as well as continuing monitoring and removal of OPM nests in potentially hazardous locations.

Boundaries

- There is uncertainty regarding the ownership of the fencing and revetment along the west bank of River Ching near Falmouth Avenue which needs clarification to ensure structures are maintained appropriately.
- The registered Forest boundary along Forest Glade on the west covers all the woodland area and is at variance with the views of some neighbours. To date, no contrary evidence has been given and the City of London assumes responsibility for managing this boundary.

Highway Verges

- Charter Road verge is cut every three years to prevent encroachment on the pavement and Chingford Lane is cut every two years to control vegetation impacting on the highway.
- Sightlines on entrance and road junctions are cut annually by the City Corporation.

Utilities

- Unidentified sewage odours: Despite investigations by City Corporation and Thames Water, there remains an unidentified sewage odour at the southeastern end of the lake, possibly as a result of contaminated storm water drains that outfall into the lake. There is also an unidentified foul odour at the northern end of the lake. This is most likely to be caused by the anaerobic condition of the water at the northern end of the lake, but there may also be unidentified contamination of the storm drain which discharges into the River Ching to the immediate north. See Appendix C for further details.

MANAGEMENT CONSIDERATIONS

Ecological

- Habitats:
 - Ancient / veteran trees: There is a scattering of impressive mature and veteran Oak standards and some pollards within Highams Park woodland, increasing in density at the northern end (Brockless, 2016). Competition from scrub and understory species and air pollution is adversely impacting the health of the veteran trees.
 - Grassland: Existing open areas and grassland are largely floristically poor. However, there are areas of acid grassland habitat, which are part of the SSSI notification and a habitat now rare in London. The grasslands are currently cut at least annually although encroachment by bramble and other scrub is a problem.
 - Scrub is an important habitat element, that is largely over-shaded in this area, and could be enhanced with more edge created, whilst still reducing encroachment on the acid grassland (see above).
 - Lapsed wood pasture: Oak Hill Wood is an area of lapsed Hornbeam-Oak lowland wood pasture with veteran trees in poor condition, acid grassland that is shrinking under threat from scrub encroachment (see grassland above), and four ponds, also in declining condition following restoration management in the 1990s. The historical core areas of acid grassland within Oak Hill Wood were significantly larger than the current area (Natural England, 2010).
 - Wetland areas (ponds and lake): these are very significant features of this area of the Forest and provide a diversity of habitats for many species, although affected by shading vegetation and possible sewerage pollution.
- Notable species:
 - Ancient woodland indicator: Ancient woodland is land that has been continuously wooded since 1600 in England. These woodlands can be identified in part through ancient woodland indicator species such as Moschatel (*Adoxa moschatella*) and Wild Service (*Sorbus torminalis*). Moschatel occurs in patches within the Highams Park woodland alongside the River Ching adjacent to the lake. There are records for Wild Service within Little Sale Wood, to the south of The Charter Road.

- Bluebell: Bluebell (*Hyacinthoides non-scripta*) occurs in scattered patches within the woodland, though these are not mapped on the City Corporation's Geographical Information System (GIS). The UK holds around half of the world's population of Bluebells and the plant is protected from illegal commercial harvesting through listing on Schedule 8 of the Wildlife and Countryside Act 1989.
- Amphibians: An amphibian survey was undertaken on the ponds and lakes within Epping Forest in 2013 (Cathering Bickmore Associates, 2014) to assess their suitability for amphibians and make management recommendations. Oak Hill Pond Extra (Pond J in Brockless, 2016) was assessed as being of high importance for amphibians and high priority for management. Oak Hill Pond South (Pond L in Brockless, 2016) was assessed as being of high importance for amphibians but medium priority for management. Oak Hill Pond North (Pond K in Brockless, 2016) was judged to be of medium importance for amphibians and medium priority for management. Highams Park lake was of medium importance for amphibians, but low importance for management, from a purely ecological point of view. Leighs Pond (Pond I in Brockless, 2016) was deemed of low importance for amphibians, and is also of low importance for management. Further details of the survey and specific management recommendations are in Appendix D.
- Lake / aquatic habitat:
 - Hypoxia: There is a history of hypoxia (Oxygen depletion) events in Highams Park lake, resulting in large-scale fish mortality. Contributory factors appear to be low water movement in the lake and poor populations of oxygenating aquatic plants, as well as seasonal climatic factors. Dissolved Oxygen levels are monitored at key times of the year.
 - Marginal vegetation: Despite recent efforts by the Highams Park Snedders to establish pockets of emergent vegetation around the lake margins, there is still a paucity of such vegetation, which has resulted in poor fish, amphibian, and invertebrate (in particular Odonata - dragonflies and damselflies) populations.
 - Shading of lake margins and river: Lapsed management around the lake margins has created excessive shading that prevents healthy marginal vegetation growth. However, the overgrown trees include Alder (*Alnus glutinosa*), a key wet woodland species around the lake edge. Management of bankside trees will need to incorporate retaining Alder in a mixed age structure along with more open areas, to encourage marginal vegetation.

Access

- Public Rights of Way: London Borough of Waltham Forest BOAT (Byways open to all traffic) numbers 141 and 142 are located at the northern end of Highams Park wood, forming a triangle with Chingford Lane. Public footpath numbers 145-147 and 149 traverse Highams Park wood from north to south to the west of the lake (in the area known as Great Sale Wood), and footpath number 148 cuts off the corner between The Charter Road and Tamworth Avenue. In Little Sale Wood, public footpath numbers 87, 91 and 92 also cross the wood in a north-south direction. Within Oak Hill Wood, a public bridleway (numbers 85 and 86) follows a track east along the northern edge of the main body of Oak Hill Wood, before turning south past some ponds to rejoin the public highway network at the road known as Oak Hill. Obstructing a Public Right of Way is a criminal offence and, as the landowner, City Corporation have the following responsibilities:
 - to avoid putting obstructions on or across the Public Rights of Way; and,
 - to make sure vegetation does not encroach onto the Public Rights of Way from the sides or above.
- Shared use trail: A permissive shared use trail runs through Highams Park, Little Sale Wood and Oak Hill Wood; it is a key north-south path through Epping Forest. During winter months, the path

becomes virtually impassable for long sections due to the heavy clay substrate. In addition, the Centenary Walk, a long-distance trail through Epping Forest, uses the permissive shared use trail.

- Accessibility : Access connections to residential areas and the formal parkland to the east are poorly integrated with Highams Park, Little Sale Wood, Oak Hill Wood and the main north-south route. Informal link paths are seasonally inaccessible and poorly defined.
- Orientation and navigation: The absence of signage and inconsistent use of place names within this part of Epping Forest makes orientation and navigation difficult for new users. Visitors would benefit from navigation maps at entrance gateways to Highams Park, Little Sale Wood and Oak Hill Wood. Communication of location names to the general public would help to engender a sense of place.
- Car parking: Currently, car parking is on local roads. However, Controlled Parking Zones are being established in the local area and the parking needs of visitors to Highams Park will need to be considered going forwards.

Community

- Highams Park Planning Group: The Highams Park Planning Group (HPPG) is a group of over 1,200 local people which has been designated by the London Borough of Waltham Forest to create a Neighbourhood Plan ('The Highams Park Plan') for the Highams Park Neighbourhood Area, which covers an area from the Waterworks Roundabout to Hatch Plain and The Loppes. The plan is being created by local residents using decision making powers granted to local communities under the Localism Act 2011. The Plan will be in two parts: a Neighbourhood Plan which will be a formal document covering land use and planning issues in the Area, and an Action Plan which will cover community projects that local people say they want implemented. Highams Park, Great Sale Wood, Little Sale Wood and Oak Hill Wood are within the area covered by the HPPG; as well as Hatch Plain, The Loppes and part of the Woodford Golf Course.
- Highams Park Community Interest Company: Highams Park CIC (HP CIC) is a community interest company which was set up by members of the Highams Park Planning Group (HPPG) in 2017, with the aim of delivering projects for local people in the Highams Park Plan Area. Working in conjunction with volunteers from HPPG, HP CIC undertook its first project in October 2017 when it entered into a lease with Waltham Forest Council for the refurbishment of a disused building in The Highams Park, to provide a community hub with café and toilets.
- The Highams Park Snedders: Some members of the HPPG have formed a team of volunteers called The Highams Park Snedders, who undertake practical conservation work within the boundary of the Highams Park Neighbourhood Plan area. They carry out small projects on Epping Forest land in conjunction with City Corporation staff.
- Scout Association: The Scout Association leases the boat house and grounds at the southern end of Highams Park lake from the City Corporation. The lease currently prohibits the Scout Association from sharing use of the boat house with the local community; however, the lease is due for renewal in 2019. As the boat house is a significant resource for the local community, the HPPG would like to see the lease amended when it is renewed, so that the boat house facilities can be enjoyed by the wider local community.
- Fishing: Fishing is allowed on the lake to people holding the appropriate Environment Agency licences. Fish stocks in the lake have however been affected by past hypoxia events.
- Boating: Historically, hire boats were available on the lake for visitors and there is a strong folk memory of these times. The hire boats were replaced by the Lea Avon Sailing Club in the mid-1960's; this was a very active club for over ten years until tree growth on the lake margins reduced the wind to the extent that sailing was no longer sufficient for sailing. The boating

tradition was to some extent continued by the Scouts, who at one time canoed regularly on the lake. Recently canoeing has become very infrequent.

- **Antisocial Behaviour:** The dam area has proved appealing as an evening gathering point, probably as a consequence of the low wall by the Scout hut. Littering and drug use appear to be regular concerns in this area.

Heritage and Landscape

- **Humphry Repton:** Highams Park was designed by Humphry Repton who, apart from his national reputation, was relatively local to the site having lived at Romford for many years. Repton created a Red Book for Higham Hill (1794), setting out his design for the estate. The survival of the Red Book shows that a majority of the proposals in the Red Book were carried out by the owner, John Harman. The park is not listed under English Heritage's Register of Parks and Gardens as it became fragmented and partly built upon in later years. However, 'The Highams Park' (to the east of the Forest land) and Highams Park lake and woodland are included in the Waltham Forest Local Plan as a Park and Garden of Historical Interest.
- **Fragmentation of a heritage landscape:** The Repton designed Highams Park is now largely split across three different landownerships. The fragmentation of ownership has led to a loss of integrity and unity of the original parkland design. Public information on the heritage landscape (e.g. signage) is poor within Epping Forest land, though new information boards have been recently installed in the park by the Snedders.

MANAGEMENT STRATEGY

The City of London Corporation will discharge its obligations with respect to property management issues, as identified in this ISP. In addition, over a period of 5-10 years, City Corporation objectives for managing Highams Park, Little Sale Wood and Oak Hill Wood are as follows:

1. to improve the accessibility and establish a clear identity for the area of Highams Park, Little Sale Wood and Oak Hill Wood for local residents and Epping Forest users more generally, through enhanced gateways, signage (including nature interpretation boards at the Lake) and paths;
2. to highlight the heritage of Highams Park, Great Sale Wood, Little Sale Wood and Oak Hill Wood as a designed park and garden, by opening up historic views and managing the landscape in a manner that is sensitive to its historic past;
3. to identify a programme of conservation measures that will contribute towards improving the conservation status of the SSSI in Highams Park, Little Sale Wood and Oak Hill Wood; and,
4. to strengthen and clarify local working arrangements and increase community involvement with the management of Highams Park, Little Sale Wood and Oak Hill Wood.

OUTLINE MANAGEMENT PROGRAM

Objective	Action	Timing ¹ (ongoing/years/subject to funding)
(City Corporation obligations)	<i>Site safety and legal work:</i> <ul style="list-style-type: none"> Fulfil statutory requirements to monitor and maintain the Highams Park lake dam and associated infrastructure to standards set out in the Reservoirs Act 1975 (as amended by the Flood and Water Management Act 2010). Manage tree safety and Forest furniture according to relevant City Corporation Policies. Monitor for return of invasive / non-native species. 	<ul style="list-style-type: none"> Ongoing Ongoing Ongoing annually
2, 3	<i>Water body management:</i> <ul style="list-style-type: none"> Reinforce lake margins using a combination of hard and soft protection techniques, e.g. timber wharfing and marginal vegetation. 	<ul style="list-style-type: none"> 2019-21
3	<ul style="list-style-type: none"> Prepare hypoxia management plan for lake. 	<ul style="list-style-type: none"> 2020-21
3	<ul style="list-style-type: none"> Oak Hill Wood: open up around ponds Oak Hill Wood: Manage growth of invasive pond vegetation, e.g. reedmace. 	<ul style="list-style-type: none"> 2019-24
3, 4	<ul style="list-style-type: none"> Develop a plan and seek funding for de-silting / re-profiling ponds. 	<ul style="list-style-type: none"> 2019-24
3	<i>Habitat management</i> <ul style="list-style-type: none"> Agree measures with Natural England to improve the Favourable Conservation Status of the SSSI and consider Countryside Stewardship Scheme funding where appropriate. 	<ul style="list-style-type: none"> 2019-20
3, 4	<ul style="list-style-type: none"> Prioritise open ground habitat management along access routes for multiple benefits to conservation, access, heritage and local stakeholders. 	<ul style="list-style-type: none"> 2019-24
3	<ul style="list-style-type: none"> Encourage spread of notable plant species within woodland. 	<ul style="list-style-type: none"> 2019-21
1, 2	<i>Access work:</i> <ul style="list-style-type: none"> Enhance gateways to Highams Park, Little Sale Wood and Oak Hill Wood. 	<ul style="list-style-type: none"> 2019-20
1	<ul style="list-style-type: none"> Improve definition of N/S shared access route with orientation signage and vegetation management. 	<ul style="list-style-type: none"> 2019-20
1, 2	<ul style="list-style-type: none"> Surface the N/S path with an all-weather substrate and link with Humphry's Café in The Highams Park. 	<ul style="list-style-type: none"> Subject to funding
2	<i>Heritage management work:</i> <ul style="list-style-type: none"> Restore and maintain a landscape that reflects the historic design by Humphry Repton, by opening up vistas, veteran tree management and restoring the 	<ul style="list-style-type: none"> Ongoing, additional work planned (2019-24)

¹ Ongoing = task is ongoing on cyclical basis in current management of the site, 2019 = first year of new task, subject to funding = additional funding required for task / project to be progressed

Objective	Action	Timing ¹ (ongoing/years/subject to funding)
4	lake, both its ecological aspect and traditional public use. Community: <ul style="list-style-type: none"> Preparation of an annual Snedders work plan. Preparation of a development strategy for enhancement projects. 	<ul style="list-style-type: none"> Ongoing 2019-2020

POTENTIAL ENHANCEMENT PROJECTS REQUIRING ADDITIONAL SUPPORT

Additional support needs to be sought from community partners to take forward the following projects.

Shared use permissive N-S path

- During winter months, the main north-south path become virtually impassable for long sections within this compartment due to the heavy clay substrate. Additional external funding will be needed to upgrade the track to a surfaced path.

Table 1: Approximate costs for creating surfaced paths

Location	Length of path section (m)	Approximate cost (£) (costed at £67/m)
Whitehall Road (A1009)	1300	87,100
Highams Park	1000	67,000
Little Sale Wood	475	31,825
Oak Hill Wood	850	56,950
TOTAL COST		242,875

Little Sale Wood and Oak Hill Wood

- Restoring the wood pasture parkland aspect of Little Sale Wood and Oak Hill Wood will require additional external funding.
- Physical improvement works to the ponds within Oak Hill Wood, such as de-silting and/or re-profiling the ponds, will also need additional external funding.

EXTERNAL OPERATIONAL STAKEHOLDERS

Chingford Green LBWF Safer Neighbourhood Panel

Chingford Historical Society

Epping Forest Conservation Volunteers

Epping Forest Heritage Trust

Epping Forest Riders Association

Essex Field Club

Hale End and Highams Safer Neighbourhood Panel

Hatch Lane LBWF Safer Neighbourhood Panel

Highams Park Community Interest Company

Highams Park Forum

Highams Park Planning Group (HPPG)

Highams Residents Association

London Borough of Waltham Forest

The Highams Park Snedders

Woodford Golf Course

Woodford Green Amenity Group

Woodford Historical Society

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APPENDIX A: Detailed Activity Plan

[See appended spreadsheet]

Refer to Figures 2 and 3 in conjunction with the spreadsheet.

APPENDIX B: List of Figures

Figure 1

Compartment 33: Highams Park
Overview of place names

Figure 2

Compartment 33 (north):
Highams Park

Figure 3

Compartment 33 (south):
Little Sale Wood and Oak Hill Wood

Figure 4

Compartment 33 (north):
Overview of utilities

APPENDIX C: Sewage Issues

Sewerage: There are two Thames Water sewage outfalls into the lake, on the eastern shore towards the southern end. There are also three further Thames Water sewage outfalls to the River Ching, one just to the north of the lake, and two to the west of the lake. In addition, a Thames Water sewer runs immediately to the west of the River Ching for around 65m just north of The Charter Road. The condition of these sewage outfalls and associated pipework is unknown.

Unidentified sewage odours: Despite investigations by City Corporation and Thames Water, there remains an unidentified sewage odour at the southeastern end of the lake, possibly as a result of a leak from one of the sewage outfalls into the lake (or the pipes feeding these). There is also an unidentified foul odour at the northern end of the lake; again, this may be in part caused by a leak from the sewage outfall immediately to the north.

Figure 4 shows the locations of the known sewerage pipes and outfalls in the northern half of Compartment 33, around Highams Park lake.

City Corporation will liaise further with Thames Water to resolve the issues relating to the foul odours occurring at the northern and southern end of Highams Park lake.

APPENDIX D: Amphibian survey results and management recommendations

Catherine Bickmore Associates was commissioned on behalf of City of London Corporation to undertake an amphibian survey of the ponds and lakes of Epping Forest (Catherine Bickmore Associates, 2014). The first objective of the study was to categorise the ponds in terms of importance for amphibians with particular reference to great crested newt. The second was to categorise the ponds according to management priority, with recommendations for management actions for amphibians.

Brockless, S (2016) was commissioned to write a management plan for the restoration of Highams Park and The Sale (Epping Forest SSSI Unit 133) into favourable condition. The report included proposed restoration / management proposals for Highams lake and the ponds in Oak Hill Wood, which have been added to the table below for comparison with the management recommendations from Catherine Bickmore Associates (2014).

Table D/1: Summary of results of pond survey for amphibians and management recommendations

Waterbody name	HIS (Habitat Suitability Index)	Invasive non-native species	Fish present (Y/N)	Other factors affecting suitability	Designation	Amphibians recorded	Importance for amphibians	Priority for management	Management recommendations (Catherine Bickmore Associates, 2014)	Management recommendations (Brockless, S, 2016)
Pond J (Oak Hill Pond Extra)	0.69	None seen in survey	N	Lack of egg laying vegetation and lack of open water	Y (SSSI & SAC)	Smooth Newt, Common Frog	High	HIGH	Reduce shade, encourage aquatic macrophyte growth, possibly deepen.	Clear scrub and excess tree cover around pond, consider reprofiling as edges very steep, investigate whether pond can hold water in spring or whether it needs clay lining.
Pond L (Oak Hill Pond South)	0.90	<i>Crassula helmsii</i>	N	Lack of open water at margins	Y (SSSI & SAC)	Common Toad, Smooth Newt, Palmate Newt, Common Frog	High	MEDIUM	Remove reedbed, address <i>Crassula helmsii</i>	Thin out oaks on south-west side of pond. Light touch management to reduce vegetation (e.g. Bulrush) encroaching into pond.
Pond K (Oak Hill Pond North)	0.78	None seen in survey	N		Y (SSSI & SAC)	Common Toad, Smooth Newt	Medium	MEDIUM	Reduce shade, remove silt/leaf litter, encourage macrophytes.	Remove excess surrounding trees and young scrub (e.g. Sycamore), de-silting whilst retaining shallow sloping profile.
Highams Park lake	0.28	None seen in survey	Y	Lack of egg laying vegetation	Y (SSSI & SAC)	Common Toad, Smooth Newt, Palmate Newt, Common Frog	Medium	LOW	Reduce shade and protect areas from waterfowl to encourage macrophyte establishment.	Initial work of some opening up, de-silting and planting in the shallows is positive. Plant further stands of emergent vegetation, continue work on bankside trees (especially along east bank), e
Pond I (Leighs Pond)	0.74	None seen in survey	Y	Lack of open water	Y (SSSI & SAC)	Smooth Newt, Palmate Newt	Low	LOW	Reduce reedbed, deepen silted margins.	Remove trees that are encroaching on pond, control spread of Phragmites across pond (though consider presence of Crucian Carp). Return of east side of pond to wood pasture and creation of maiden pollards (Area G) will aid pond restoration process.

Timing of work in and around all four ponds is vital, with the ideal timing for de-silting and removal of excess vegetation from the water being the winter months. Tree and scrub clearance work should be done prior to hibernation of species as Great-crested newt. Work should be undertaken on the individual ponds at different times. With other ponds close by and plenty of suitable linking habitat, individual ponds will be re-colonised.

